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## Can a decision-making approach in foreign policy be applied to leaders in education?

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### Abstract

The analysis of decision making is a micro strategy that is aimed to describe, explain and sometimes even forecast the outputs of decisions as well as the actual unknown behaviour itself (Bueno de Mosquita, 1992). Rosenau (1987), who is one of the pioneers in the study of foreign policy, described the issue as researcher's intentions to decode a wide environment of human activity. Therefore, it practically engages in the study of decision making (Rosenau, 1987). In the education policy arena, similarly to international relations process policy, there are many decision making junctions as well as process policies - academic and intuitive.

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*Keywords:* Educational leadership; decision making; rational model; irrational model; heuristics; biases; bureaucratic model; organizational model; governmental model; psycholinguistic model.

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### 1. Introduction

This essay refers to research literature in the field of social science decision making processes and presents

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application examples of the major decision making models in education. The author deals with the theoretical perspective brought together around four major approaches: the rational model, the irrational model, bureaucratic models and the psychological one.

The essay's goal is to demonstrate the contribution of various aspects from four influential approaches in decision making and to present their implications in education.

The proposition is built in two stages: presentation of decision making models as originally used and examples of these models adapted to education.

The rapid development of web-based instruction enhances the need of teachers and curricula developers to investigate the individual learner's characteristics and needs.

In addition, the Existence of "smart classrooms" enables teachers to be "technology pioneers".

Finally, this article discusses how ICT tools can be used to promote computer science students understanding.

## **2. Theoretical foundation and related literature**

### *2.1. The Rational Actor Model*

The Rational actor model is the basic model in the field of decision making processes.. Some researchers in the field of social science refer to the issue and its solution as bridge or chess. In these games the sweeping benefit is the ultimate goal, which means victory that is, in itself, an integral part of the game (Shubik, 1967). The event creates a full match between means and goals, and the players make decisions based on one question: What is the option that is optimally available and serves the purpose?

In its classical original style, the paradigm assumes that a decision maker is primarily a rational player that is conscious of each possible action's alternatives and is capable of accurately determining the expected result of those alternatives. The decision maker decides in light of clear priorities that were set by an intelligent rules system. A rational decision maker performs a series of calculations in two interrelated dimensions: utility and probability. In fact, a decision maker performs three basic steps: (1) formulates all possible alternatives. (2) Evaluates in terms of cost-effectiveness each of these alternatives and applies an appropriate probability score to it. (3) Selects the optimal alternative, which would allow him/her maximum benefit (Zunger, 1963; Maoz, 1990; Russett & Starr, 1992; Allisson & Zellikow, 1999). A careful consideration of policy alternatives using the rational actor model does not automatically ensure a sound outcome. Experts and advisory groups often analyze policy dilemmas thoroughly, but arrive at a suboptimal outcome. In general, the analytical process of the rational model should lead to better decisions, although not always to better outcomes (Renshon & Renshon, 2008).

One example applying the rational model to education is provided by Kaniel (1994). He used the rational model as he attempted to achieve optimum processes in choosing a school by parents. The process is based on the classic model of rational decision-making. His research offered parents a logical sequence and content in selecting a school. It included a match between parents' educational perceptions and schools' targets, justifications and priorities in achieving them. In addition, it used teaching methods of testing, feedback, staff and resource levels, as well as a systematic inspection program that combined resources and teachers in order to achieve goals. Moreover, a number of actions are necessary to allow parents to make efficient and optimal selections: introducing change according to agreed principles, fairness placement methods development, establishment of information centres, schools, characterization, setting minimum standards, support for weak schools, teacher training, parent training and integration of students into the selection process. Another study connecting rationality in education, carried out by Kahneman & Lovallo (2003), demonstrated the value of rational systematic steps in developing new education programs. The researchers claimed that the lack of rational planning stages in the development program resulted in its failure (Kahneman & Lovallo, 2003).

It seems that the rational model offers a clear and logical means for decision-making. However, in many cases it is difficult to act rationally. The difficulty may arise from a leader's personal situation, the surrounding environment or sensitivity of the matter itself (Walker, 1991).

### *2.2. The Irrational Model*

The Irrational model evolved in response to the rational paradigm. Simon (1992), who was one of the

founding fathers in the field of decision-making, claimed that human beings are finite and limited beings. According to him, human limitations are associated with time, memory, calculation ability, and being able to choose the best alternative (Kahneman, 2013).

Kahneman and Tversky, who researched biases and intuitive thinking, developed together "Prospect Theory" (refers to psychological benefits of decision-making as opposed to psychological costs of loss). They presented their initial findings in their essay: "Judgment conditions under uncertainties: heuristics and biases" (1974). This article became the basis for many other studies in various fields as it clearly describes the shortcuts that simplify intuitive thinking. The researchers treated biases and heuristics that participate in decision-making processes as "pretty useful, but sometimes can lead to serious and systematic errors" (Kahneman, 2013, p. 13).

Simon, who investigated chess masters, found that after thousands of practice hours the players began to see the tools on the board in a different way from other people. He summarized the phenomenon as follows: *"The situation has provided a clue, this hint allowed the expert access to information stored in the memory, and that information helped coming up with the answer. Intuition is nothing more than identification..."* (Simon, 1992, p.155).

These statements lead to claim that intuition is based on expertise. Unfortunately, not all intuition that comes from experts is based on real professionalism. This understanding led Kahneman and Tversky to continue investigating and find a way to formulate a mental related scheme that looks at two systems of thoughts: Slow Thinking and Fast Thinking (2013). Kahneman described mental life through a metaphor of two agents called "Fast-System" (Number 1) and "Slow System" (Number 2), which respectively produce quick and slow thinking. According to him, the fast system, which is connected to irrational decision making aspects is quick and intuitive and more influential than what decision makers want to believe. That system operates automatically and quickly, with little effort, if any, and without involuntary sense.

The slow system allocates attention to strenuous mental activities that require complex calculations. The actions of this system are often associated with subjective experiences of selection and concentration.

Kahneman believes that while a decision-maker tends to identify with the slow system, meaning the self-conscious and thinking that is perceived as choosing and deciding about what to think and act; the fast system is the real hero in decision-making in many life situations. Kahneman describes the fast system as one that is capable of creating without efforts and feelings, which are the main sources of the beliefs that guide the slow system.

Kahneman distinguishes between different situations that are managed by both systems: Fast system decisions include those that occur automatically and require small, or no, effort. This system controls associations between concepts and it is responsible for understanding the subtleties of social situations. Some of its mental actions are involuntary but mostly it is about actions similar to an "automated pilot". As for the slow system, he points to common characteristics, which include activities that require attention and are disrupted when attention is diverted. The hallmark of strenuous activities is that they cannot coexist and therefore it is nearly impossible to perform these activities simultaneously.

Kahneman and Tversky's research focused on finding various heuristics biases of the fast system during decision making processes. For example, the "Substitute Question" bias, that accrues when decision-makers choose to treat a question by responding to a question simpler than the one that was originally asked. Another known bias is "overconfidence", especially overconfidence of experts, as demonstrated by Tetlock's study (2005). Tetlock found that developing a simple and consistent working formula brings equivalent or better results than relying on expert opinions (Tetlock, 2005).

Another example of irrational bias is named the "law of the small numbers." This bias applies to errors that occur following decision makers who choose to attach great significance to small samples of studies that support their hypotheses, instead of looking at complex considerations that are required in order to come up with accurate conclusions.

Weiner & Zwerling's (2006) research contributed a good example of the "law of small numbers" in education. According to them, the largest investment of generous American investment funds, have been designed to track the intriguing findings with regard to characteristics of the most successful schools. As a result, many studies have searched for the secret of achieving good education by locating the finest schools in the world, hoping to find out what is their uniqueness. One of their conclusions was that outstanding schools are small schools. The conclusion was made on an intuitive level about the American education system, and so began the program of "smaller learning communities" by the US Department of Education. Unfortunately, the reliance on a partial sample gave an incomplete picture.

Weiner & Zwerling (2006) claimed that if the statisticians were looking for characteristics of the weakest

schools they would have found that weak schools tended to be smaller than average as well. The authors demonstrated that, in fact, large schools tend to get good results, particularly in the higher grades, where a large selection of courses of study is valuable. Kahneman added in this context that excessive belief in small samples is an example of a greater illusion decision-making. There is more attention to the content of the messages than to information on reliability that lead to simple decisions that ignore the complex picture (Kahneman, 2013).

### *2.3. The Bureaucratic Model*

The Bureaucratic Model of decision making in social sciences began to develop systematically in the 60's. It emerged as a critical response to the rational paradigm, and intended to apply to new knowledge gathered from organizational research (Kegley & Wittkof, 1999). More than 100 years ago, Weber stated that government in the modern state is influenced by 'routines of administration' (Weber, 1978, p. 1393). Weber predicted that their impact on decision-making processes was enormous (Kegley & Wittkopf, 1999). The research emphasized the actual contribution of bureaucratic organizations to streamlining decision-making processes in terms of outputs. Allison's research in 1969 was the first that dealt with the issue in-depth. Allison's analysis showed that bureaucratic processes in foreign policy are desirable and possible as well. The impact on research in the field has been tremendous. Allison offered two options of bureaucratic models, as alternatives to the rational model, to explain decision making processes: the organizational model and the governmental political model (Allison, 1971).

#### *2.3.1. The Organizational Bureaucratic Model*

The Organizational Bureaucratic Model views decisions in international policy making as products of large organizations who act under Standard Operational Procedures (SOP's). This model assumes that decisions are also made within agencies. The key dynamic in the organizational model is Standard Operating Procedures (SOP's). SOP's tend to govern issues that low-level bureaucrats can handle. However, important decisions, such as long-term budgets, might be considered through an organizational lens. Often times, leadership decisions that involve little uncertainty are not crisis decisions and are made on the basis of guidelines or some administrative rules (Mintz & Deruhen, 2010).

#### *2.3.2 The Governmental Politics Model*

The Government Politics Model looks at how decisions involving various bureaucracies can elicit political competition. The key to this model is that there is no overarching master plan and that decisions emerge from political struggle and bargaining between groups where the decision period is effective between players enacting political roles and divided on national questions (Dougherty & Pfaltzgraff, 1990). The governmental model is a development of previous work of Neustadt (Neustadt, 1960-1990) and is based on a series of studies and published works since the early 50's (Allison & Zelikow, 1999). Thus, foreign policy decisions emerge through an abstract political space rather than a formal decisions' procedure that relies on a formal chain of command. "...The actors in the Governmental model are key individuals sitting atop key organizations" (Mintz & Deruhn, 2010, p. 71). Decision makers try to maximize their interests, agendas, and goals. In contrast to the rational model described by Allison (1971), the governmental model assumes multiple organizations and bureaucracies rather than a single actor.

Mintz and Deruhen (2010) found that mid-level policy decisions are well represented by the governmental model, since there is typically not enough time for bureaucratic politics to play out during crises. However, since decision makers deal with complex problems, and not at a superficial level, sometimes leaders must use mixed and flexible decision-making strategies (Mintz & Deruhen, 2010). "Decision makers even have the incentive to negotiate internally with each other before presenting alternatives to executives" (George, 1972, p.102). The process may dictate which information is presented to leaders. As Renshon & Renshon (2008) pointed out, bureaucracies strive to grow so their expertise monopoly can be further consolidated (Renshon & Renshon, 2008).

### 3. Proposed Application of The Bureaucratic Model in Education

Most educational systems in nowadays are hierarchical organizations. They are in fact bureaucratic organizations that protect their own turf by controlling policy in their area of expertise.

A simple proposed option to apply the governmental model to education bureaucracies might be to replace concepts of 'political parties' and 'departments', which represent various stakeholders in politics with concepts such as 'classes' and 'teaching layers' that comprise an educational institution.

Igell (2006) demonstrated the contribution of aspects of the bureaucratic model in special education systems. She investigated students with special educational needs and investigated committees that determined student education classroom type, considering integration or separation from regular classrooms. The research focused on moral, educational, legal and economic aspects (Igell, 2006).

The Israeli "Special Education Law" (1988) was formulated in order to secure the state's commitment to the entitlement of children with special needs and special education services. The law states that entitlement to student special education services as part of education is implemented by Assignment Committees. These committees' authority and composition are also defined by law ("The law of Special Education", 1988).

Igell (2006) emphasized the lack of models and guidelines how to make decisions in these committees. According to her research, practical fieldwork was formed as a result of accumulated experience and knowledge, while in many situations people were not aware that they were implementing a certain pattern. Various research works have pointed to complexities in decision-making processes in these committees and to the fact that their members are exposed to pressures and constraints from external systems.

Igell researched and tested the process of these committees' work and their decision-making processes. Her work emphasized the valuable contribution of bureaucratic models of decision making in this instance.

Another contributing model for decision making is **the psychological model**. Throughout the last century, psychological research has penetrated most of our life and culture impacting human thoughts and actions. The use of innovative psychological tools was therefore inevitable. In addition, it seems that politicians and leaders go beyond rational considerations during decision-making processes and therefore are great candidates for classic psychological research. Laswell (1911) was the first who systematically dealt with the association between politics and psychology (Laswell; 1911, 1935, 1986). In the 60's and 70' one development in the field of international relations research presented outcomes of foreign policy as corporate or bureaucratic processes. Both the rational and bureaucratic paradigms emphasize the weaknesses of decision-makers (Casif, 2005). In light of this, there have been attempts to systematically describe the contributions of specific decision makers to the overall process of social sciences development. This was done through the implementation of approaches and theories from external disciplines, of which psychology is one.

The main challenge that faced those who deal with the influence of personality variables on decision-making processes was identifying situations that encouraged its emergence. Holsti (1976) pointed out four scenarios in which the influence of such variables tends to grow: 1) unusual situations such as crises; 2) decisions that are taken at the top of an organizational hierarchy; 3) conditions that are characterized by a high degree of ambiguity or uncertainty; 4) decisions that are related to long-term planning (Holsti, 1976). Other researchers, like Rosenhu and Kissinger (1992) emphasized a series of different personality variables (Russett & Starr, 1992). As mentioned above, the study of international relations aimed to apply theoretical and intellectual traditions that emerged as part of the psychology discipline. The paradigm that emphasizes unique contributions of specific decision-makers to the creation of policy processes is split into two main approaches (Casif, 2005): 1) the psycho-pathological approach that seeks to point out the unique personalities of decision makers as a source for explaining the decision itself; 2) the cognitive approach that focuses primarily on perception, memory and information processing and how it influences decision-making and policy formulation. These two methods in the psycho-logistics field of explaining decision making can help significantly in understanding decision making by educational leaders. Educational leaders are influenced by psycho-logistics processes from the past in a very similar manner to political leaders. Humans are humans and understanding their personal motivations can contribute to understanding and solving more complex emotional situations during decision making processes.

#### 4. Conclusions

This article presents the main characteristics of four basic models, which are the basis for researching the subject of decision-making in political science.

From the author's research with regard to foreign policy decision making processes during the Yom-Kippur War, and from the author's personal experience as a special education manager, it seems there are many similarities between the two areas - governmental and educational. First, their leaders make decisions that affect other people's lives. In addition, politics as a whole is part of our everyday life. Therefore it is a valuable challenge to use the accumulated knowledge and wisdom that is already available in political science and apply it to educational decision making processes.

##### 4.1. Proposed Recommendations

1. Apply knowledge gained in policy decision making processes to education, which might contribute to education decision making development. Both areas deal with human beings who serve the community in leadership positions, and with decisions that affect many people, and often are perceived as critical
2. Consider encouraging educational leaders to use various decision making models; it seems that school principals are the main players in determining school policy. However, it is important to consider additional school educators, who are experts in their own fields, in research studies and models as they are involved with crucial decision-making processes in their areas of responsibilities.
3. It is important to improve and strengthen dialog in decision making processes in education. Development of that dialog might help decision makers in education become more visible and it can improve future interventions. In such a way leaders can develop improved awareness and understanding of motives and circumstances and become better equipped to make the best decision.
4. Continue researching decision making processes in education in light of the model developed in the author's research. This model considers aspects from four basic models: rational, emotional, bureaucratic and irrational. It will be interesting to investigate the implementation of this new model in various educational arenas in the future.

**"... Fixing the world, means fixing the education..." (Janusz Korczak, 1939)**

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